

IN THE CLAIMS

Claim 1. (Original) A mobile phone for storing and reproducing digital audio data, comprising:

a keypad having a plurality of alphanumeric keys used for commanding a phone module to make mobile communication and to manipulate digital audio data;

a phone module for controlling the ordinary functions of said mobile phone, for enabling digital audio data to be downloaded from a personal computer to said mobile phone according to a key input through said key pad, and for enabling the sound of the digital audio data to be reproduced according to a key input through said key pad;

an RS-232 connector for connecting said phone module and personal computer to exchange digital audio data and other data; and

a digital audio data module for storing the digital audio data from said phone module for playing or stopping sound reproduced from the stored digital audio data, for rewinding the sound reproduced, and for fast-forwarding the sound reproduced.

Claim 2. (Original) The mobile phone as recited in claim 1, wherein the digital audio data is MPEG (Moving Pictures Engineering Group) 1/2 Layer-3, or MP3, data and the digital audio data module is a MP3 module.

Claim 3. (Original) The mobile phone as recited in claim 2, wherein said MP3 module comprises:

a memory device for storing MP3 digital audio data;

a Central Processing Unit (CPU) for controlling the MP3 audio data receiving from said phone module to be stored in or reproduced from said memory device;

an MP3 decoder for de-multiplexing MP3 audio data into control data and audio data for Huffman-decoding the audio data from run-length coded compressed signals to original length signals, for subjecting each sub-band of the signal to re-quantization and re-scaling according to said control data, for recovering the resulting data by an inverse discrete cosine transformation, and for inversely filtering each sub-band to finally obtain PCM (Pulse Code Modulation) data; and

a digital to analog (D/A) converter for converting PCM audio data delivered from said MP3 decoder into corresponding analog audio data.

Claim 4. (Currently Amended) A method for reproducing digital audio data in a mobile phone, comprising the steps of:

91 downloading digital audio data stored in a personal computer to a memory device of said mobile phone; and

selectively reproducing or playing said digital audio data stored in said memory device;

wherein said mobile phone includes a phone module for mobile communications and a digital audio data module, said digital audio data module for

storing said digital audio data to said memory device,

and using said stored digital audio data to produce audible sounds,

91
further wherein said the mobile phone can be connected to a said personal computer by means of an adapter ; ~~said adapter for converting personal computer parallel data to mobile phone serial data and vice versa.~~

Claim 5. (Original) The method as recited in claim 4, wherein the digital audio data is MPEG (Moving Pictures Engineering Group) 1/2 Layer-3, or MP3, data.

Claim 6. (Original) The method as recited in claim 4, wherein the step of reproducing said digital audio data comprises the steps of:

selecting digital audio data play mode from a main menu;

displaying a detailed menu for playing said digital audio data; and

sequentially playing said digital audio data upon selecting a play key in said detailed menu.

Claim 7. (Original) The method as recited in claim 6, further comprising the step of:
rewinding said digital audio data to a first stored position of said digital audio data upon

selecting a rewind key in said detailed menu.

Claim 8. (Original) The method as recited in claim 4, further comprising the step of:
replaying said digital audio data from a first stored position upon prolonged pressing of a
rewind key during playing.

Claim 9. (Original) The method as recited in claim 4, further comprising the step of:
moving a playing position to a starting point of said digital audio data next to that
presently being played upon a short press of a fast forward key during playing.

Claim 10. (Original) The method as recited in claim 6, further comprising the step of:
fast-forwarding a playing position to a starting point of a next digital audio data upon a
short press of a fast forward key in said detailed menu.

Claim 11. (Original) The method as recited in claim 4, further comprising the step of:
fast-forwarding a playing position to a starting point of a last digital audio data.